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Application No. : 2,432,666
Owner : SAMSUNG ELECTRONICS CO., LTD.
Title : METHOD AND APPARATUS FOR A HOME NETWORK
 : AUTO-TREE BUILDER
Classification : H04L 12/16 (2006.01)
Your File No. : 33114-0264
Examiner : Donald Lefebvre

YOU ARE HEREBY NOTIFIED OF A REQUISITION BY THE EXAMINER IN ACCORDANCE WITH SUBSECTION 30(2) OF THE *PATENT RULES*. IN ORDER TO AVOID ABANDONMENT UNDER PARAGRAPH 73(1)(A) OF THE *PATENT ACT*, A WRITTEN REPLY MUST BE RECEIVED WITHIN SIX MONTHS AFTER THE ABOVE DATE.

This application has been examined as originally filed.

The number of claims in this application is 69.

Search Results and Synopsis of the Prior Art

The search of the prior art has revealed the following:

References Applied:

United States Patent
5,504,921

2 Apr 1996

G06F-11/30

DEV et al.

Publication

ZWOLL et al., "A Low Cost Local Area Network for Connecting Accelerator Equipment", IEEE Transactions on Nuclear Science, Vol. NS-32, No. 5, October 1985, pages 2077-2079

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DEV et al.

DEV et al. disclose a network management system comprising a user interface, a virtual network and a device communication manager. The virtual network includes models which represent network entities and model relations which represent relations between network entities. Each model includes network data relating to a corresponding network entity and one or more inference handlers for processing the network data to provide user information. The system performs a fault isolation technique wherein the fault status of a network device is suppressed when it is determined that the device is not defective. User displays include hierarchical location views and topological views of the network configuration. Network devices are represented on the displays by multifunction icons which permit the user to select additional displays showing detailed information regarding different aspects of the corresponding network device. [Abstract, and Figures 1, 5-10]

DEV et al. disclose that the network management system comprises a user interface, a virtual network machine, and a device communication manager. The user interface, which may include a video display screen, keyboard, mouse and printer, provides all interaction with the user. The user interface controls the screen, keyboard, mouse and printer and provides the user with different views of the network that is being managed. The user interface receives network information from the virtual network machine. The virtual network machine contains a software representation of the network being managed, including models that represent the devices and other entities associated with the network, and relations between the models. The virtual network machine is associated with a database manager which manages the storage and retrieval of disk-based data. Such data includes configuration data, an event log, statistics, history and current state information. The device communication manager is connected to a network and handles communication between the virtual network machine and network devices. The data received from the network devices is provided by the device communication manager to the virtual network machine. The device communication manager converts generic requests from the virtual network machine to the required network management protocol for communicating with each network device. Existing network management protocols include Simple Network Management Protocol (SNMP), Internet Control Message Protocol (ICMP) and many proprietary network management protocols. Certain types of network devices are designed to communicate with a network management system using one of these protocols. [Column 3, lines 29-61]

DEV et al. also disclose that each network device has a model in the virtual network machine, and each connection relation corresponds to a data bus. In operation, at a specified time a model initiates polling of a corresponding network device in order to obtain an update of the status of the network device. The model sends a request to the device communication manager to poll the network device. The device communication manager converts the request to the required protocol for communication with the network device and sends the message.

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The requested information may, for example, be the number of packets sent on the network in a given time and the number of errors that occurred. *When the requested information is returned to the model, the corresponding attributes in model are updated.* The error alarm inference handler may shut off the corresponding network device and send an alarm to the user interface. The alarm is also logged in the database. [Column 8, lines 23-53]

DEV et al. also disclose that *the user interface provides information concerning the network to a user. The primary device for presenting network information to the user is a video display screen. The display screen utilizes a high resolution, window-based display system to provide different views or displays of the network configuration and operation. The user display is based on the X-Window system which includes routines for generating the appropriate display or view based on input data. The display screen is used in conjunction with a mouse to permit the user to select different views of the network.* It will be understood that the user interface can be implemented using other window-based systems. [Column 12, lines 1-15]

DEV et al. also disclose that *the user interface of the network management system is highly flexible and permits new views of the network to be added to the network management system. New views require new view managers and icon managers to be instantiated. Since the views are implemented as C++ objects, new views and icons are easily derived from existing views and icons. New views and modifications of existing views are easily provided by additions or changes to parameters and data which control the views, without changes to the control code.* [Column 14, line 60 to column 15, line 2]

ZWOLL et al.

ZWOLL et al. disclose *system for connecting accelerator equipment to an overall control system by using a field bus. The development concentrates on a low cost station interface for connecting control equipment (pumps, magnets, etc.) and a driver board with a high level user software interface. In order to control lineal accelerators, a hierarchically organized communications system is used. A process high way network (PROWAY) serves as backbone communications system for carrying messages for the control of equipment; and for acquiring data, status information, alarm messages etc. Field buses connect the local control units. The local control equipment can either be intelligent (microprocessor) or be realized by hardware logic only.*

ZWOLL et al. disclose the use of the PDV-BUS (DIN 19241), which is designed for processing communication in distributed industrial control systems. *The protocol allows for up to 250 nodes on the bus. The bus arbitration can be centralized or be realized by a token passing mechanism, flying master scheme.*

ZWOLL et al. disclose that *the user interface allows a user to communicate with the communications package and vice versa. The protocol between the user program and the communications program has a command/response structure.*

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The remote access control module receives commands for execution and returns status after the commands execution to the user interface. The network management is concerned with activities such as the configuration and reconfiguration of the network, reporting status information and performance analysis.

*(Emphasis to instant claims highlighted in **italics**)*

Obviousness

Claims 6 and 15 describe a method for providing an interface for accessing devices that are currently connected to a home network, the method comprising the steps of: (a) detecting devices that are currently connected to the home network, said devices having at least one controllable function; (b) creating a menu for selecting said devices to activate said controllable function; (c) displaying said menu on a browser based device.

Claims 24 and 33 describe a home network system for providing an interface for accessing devices that are currently connected to a home network, comprising: (a) a detector that detects devices that are currently connected to the home network, said devices having at least one controllable function; (b) a menu generator for creating a menu for selecting said devices to activate said controllable function; and (c) a browser for displaying said menu on a browser based device.

The combined teachings of DEV et al. and ZWOLL et al. describe a network management systems which utilise interrelated, intelligent models of network entities to form a virtual network, allowing the user to manage network devices via a sophisticated user interface [DEV et al.]. A system for connecting network equipment to an overall control system by using a communications network, where an interface for connecting the network equipment are controlled via a user software interface [ZWOLL et al.].

The above claims are obvious in view of DEV et al. and ZWOLL et al.

Claims 7-14, 16-23, 25-32, and 34-41 depend on one of the above claims, and fail to overcome the objections to those claims.

The subject matter of claims 6-41 are obvious in view of DEV et al. and ZWOLL et al. Therefore none of the above claims comply with Section 28.3 of the *Patent Act*.

Overlap

Claims 1 and 2 overlap the subject matter of claims 1 and 2 of applicant's copending application number 2,295,081. Subsection 36(1) of the *Patent Act* states that an inventor is only entitled to "a" patent for each invention and under subsection 36(2) of the *Patent Act*, two inventions are required to support two patents. Retention of overlapping subject matter in the present application would result in non-compliance with subsection 36(1) of the *Patent Act*. (GlaxoSmithKline Inc. v. Apotex Inc. et al. (2003) 27 C.P.R. (4th) 114 at para. 89 (F.C.T.D.))

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When comparing the above stated claims, the following observations can be made:

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1. A method for providing an interface for accessing devices that are currently connected to a home network, the method comprising the steps of:

creating a device link page, wherein the device link page contains at least one graphical or textual representation and wherein said at least one graphical or textual representation originates from corresponding devices that are currently connected to the home network;

associating a hyper-text link with each device representation, wherein the hyper-text link provides a link to a web page that is contained in the device that is associated with said device representation; and

displaying the device link page on a browser based device.

2. The method of claim 1, wherein the step of creating the device link page includes the steps of:

retrieving a logical device name from the device link file;

storing the logical device name from the device link file;

storing the logical device name in the device link page; and

converting the logical device name to a device button.

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1. A method for providing an interface for accessing home devices that are currently connected to a local network, the method comprising the steps of:

autonomously creating a device link page from at least the local network, wherein the device link page contains at least a device button that is currently connected to the network

associating a hyper-text link with each device button, wherein the hyper-text link provides a link to graphical or textual information that is contained in the device that is associated with the device button; and

displaying the device link page on a display device.

2. The method of claim 1, wherein the step of creating the device link page includes the steps of:

detecting a logical device name from a device link file;

storing the logical device name in the device link page; and

converting the logical device name to a device button.

These claims are also contemporaneous with, and obvious in view of the claims of the other application and therefore non-compliant with subsection 27(1) of the *Patent Act*. (Commissioner of Patents v. Farbwerke Hoechst Aktiengesellschaft Vormals Meister Lucius & Bruning (1963) 41 C.P.R. 9 at 13 (S.C.C.))

Claims 3-5 depend on claim 1, and fail to overcome the objection to claim 1.

Non-Prior Art Deficiencies

The examiner has identified the following defects in the application:

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Claims

Claims 6, 15, 24 and 33 are indefinite and do not comply with subsection 27(4) of the *Patent Act*. The features of "creating a menu" and "a menu generator" cause a lack of clarity. When referring to the description there is no support for these particular features. However, the description does mention: "device link page", "frames", "manufacturer device buttons", "home device buttons", and "device buttons". To a person skilled in the art, a distinction is made between: "menus", "toolbars" and "desktop icons/buttons". Clarification is required.

Claims 14, 23, 32, 41, 36, 46, 47, 56, 59, 60 and 64 are indefinite and do not comply with subsection 27(4) of the *Patent Act*. The following expressions have no antecedents:

"the step of autonomously detecting" (claims 14, 23);

"the detector autonomously detects" (claims 32, 41);

"said detected device" (claim 36);

"said menu" (claims 46, 59);

"the menu" (claims 47, 60);

"said device" (claim 56);

"the browser" (claim 60); and

"The system" (claim 64).

Claims 15-23 are indefinite and do not comply with subsection 27(4) of the *Patent Act*. The claims are redundant in view of claims 6-14, and should be deleted. The feature of "detecting an active state device" would be considered the same to a person skilled in the art to the feature of "detecting a device".

Claims 24 and 33 are indefinite and do not comply with subsection 27(4) of the *Patent Act*. The feature of "a detector that detects devices" cause a lack of clarity. When referring to the description there is no support for this particular feature. However, the description does mention: "By comparing the information the GENIP 318 can determine if a home device has been added or removed from the home network."

More specifically, the "current" database is compared item-for-item against the previously read database and, if any differences are found, a database update is performed thereby providing detection of any newly connected devices on the home network" (page 16, line 21-25). As stated above there are physical detector performing the act of detecting. Detection is achieved by comparing database inputs. Clarification is required.

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Claims 33-41 are indefinite and do not comply with subsection 27(4) of the *Patent Act*. The claims are redundant in view of claims 24-32, and should be deleted. The feature of "a detector that detects an active state device" would be considered the same to a person skilled in the art to the feature of "a detector that detects a device".

In view of the foregoing defects, the applicant is requisitioned, under subsection 30(2) of the *Patent Rules*, to amend the application in order to comply with the *Patent Act* and the *Patent Rules* or to provide arguments as to why the application does comply.

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